DOCUMENT RESUME

ED 106 455 CE 003 596

TITLE	Curriculum Guidelines.
INSTITUTION	Mountain-Plains Education and Economic Development Program, Inc., Glasgow AFB, Mont.
PUB DATE	Nov 74
NOTE	38p.; For related documents, see CE 003 592-597 and CE 004 257
AVAILABLE FROM	Mountain-Plains Economic Development Program Inc., Box 3078, Glasgow AFB, Montana 59231
EDRS PRICE	MF-$0.76 HC Not Available from EDRS. PLUS POSTAGE
DESCRIPTORS	Curriculum Design; *Curriculum Development; Evaluation Criteria; *Evaluation Methods; *Guidelines; *Vocational Education
IDENTIFIERS	Mountain Plains Program

ABSTRACT

The Mountain-Plains curriculum guidelines are outlined to provide guidance in fulfilling the requirements of the Career Education Model Four project as they relate to curriculum design, implementation, and evaluation. The curriculum is devised for the sole purpose of supporting the mission of Model Four and is based on the criteria for family success through the development of employability skills, home life skills, social involvement skills, and personal skills. The document outlines the functions of the curriculum department; program terminology; production flow charts for Learning Activity Packages (LAP's) with directions for their development; student progress records and student work plans; Learning Experience Guides (LEG's) with examples; procedures for curriculum development; evaluation procedures; and forms for curriculum change routing, curriculum worksheets, routing slips, and initiation of an audiovisual curriculum products. (BP)

FEB 20 1975

ED106455

Mountain-Plains Education & Economic Development Program, Inc.
POST OFFICE BOX 3095 GLASGOW AFB, MONTANA 59231 TEL: (406) 228-8221

CURRICULUM GUIDELINES

PERMISSION TO REPRODUCE THIS COPYRIGHTED MATERIAL BY MICROFICHE ONLY HAS BEEN GRANTED BY
Michael Fenenbock
Mt-Plains E.E.D.P.
TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE NATIONAL INSTITUTE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER.

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

David A. Coyle
Director
Research Services

Robert England
Senior Curriculum
Specialist

NOVEMBER 1974

TABLE OF CONTENTS

The Role of Curriculum 1

- Model IV Mission 1
- Criteria for Family Success 2
- Skills to Achieve Family Success 2
- Production Components 3
- Curriculum Components 3
- STPO-Production Component Matrix 5
- Mobility & Transportation STPO-LAP Relation Chart 6
- Comm Skills STPO-LAP Relation Chart 7
- Curriculum Department Functions 8

Difficult Terms 9

Production Flow Chart 12

Learning Activity Packages (LAPs) 13

LAP Example 14

Student Progress Record and Student Work Plan 16

Learning Experience Guides (LEGs) Explanation 19

Curriculum Area LEG 20

Course LEG 21

Unit LEG 23

Procedures for Curriculum Development 25

Correction Procedure for Word Processing 26

Evaluation 27

FORMS 28

- Curriculum Change Routing Form 29
- Curriculum Worksheet 30
- Routing Slip 32
- A-V Initiation Form 34

CURRICULUM GUIDELINES

In keeping with the intent of Mountain-Plains Policy and Procedure, this is outlined for guidance in fulfilling the requirements of the project as they relate to Curriculum Design, Implementation and Evaluation.

THE ROLE OF CURRICULUM

As we shall see in following graphic illustrations and discussions, Curriculum is devised for the sole purpose of supporting the mission of Model IV.[1]

> *"The mission of Model IV is to develop, test and report the potential of a residential career education program to improve the economic and human viability of rural multi-problem families chosen from a Western six-state region. Success will be measured from both the viewpoint of society and of the family.*
>
> *From the viewpoint of society, the criterion of success will be economic payback to society as measured through cost-benefit analysis or economic return on investment.*
>
> *From the viewpoint of the family, the criteria of success will be family economic viability and satisfaction with job and life. Satisfaction with job and life will be measured directly. Family economic viability is defined as family economic growth and development. The criteria of success will be: a) job-getting, job-holding and job-progression; b) effective interaction with economic and related social aspects of society; c) effective family management.*

Figure 1

[1]Proposal for Grant Continuance, Vol. II, P.1

The criteria for family success as stated in Footnote 1 are:

a. job-getting, job-holding and job-progressing,
b. effective interaction with economic and related social aspects of society,
c. effective family management and
d. satisfaction with job and life.

In order to achieve these criteria, it is felt that family personal skills, employability skills and abilities allowing families and individuals to interact successfully with the Socio-Economic Environment are necessary. A number of family and individual skills are identified as related and necessary if families are to achieve the criteria for Program success. The skills identified are in Figure 2.

1.1 Employability Skills

- 1.1.1 World of Work
- 1.1.2 Work Attitudes
- 1.1.3 Academic Skills
- 1.1.4 Functional Job Skills

1.2 Home Life Skills

- 1.2.1. Family Relations
- 1.2.2 Health
- 1.2.3 Home and Consumer Management
- 1.2.4 Leisure Time Skills

1.3 Social Involvement Skills

- 1.3.1 Environment Adjustment
- 1.3.2 Interpersonal Relations

1.4 Personal Improvement Skills

- 1.4.1 Academic Personal Improvement
- 1.4.2 Problem Solving
- 1.4.3 Development and Implementation of Plans
- 1.4.4 Self-recognition Skills

Figure 2

With some changes already in effect and others to be effected, the four major headings and their sub-categories are analyzed and translated into measurable objectives called Student Terminal Performance Objectives (STPOs) These objectives are used to assign Production Component responsibility and serve as a reference against which Curriculum will be evaluated.

STPOs were written in accordance with the structure found in Figure 2. Since this structure is not congruent with that used for Production Components from which Curriculum falls out, a matrix is used (Figure 3).

PRODUCTION COMPONENTS - CURRICULUM COMPONENTS

This matrix, in effect, assigns Production Components to satisfy the requirements of the Project Mission. These Production Components are then broken down into the Instructional Hierachy, such hierachy being somewhat different for different Instructional Areas (Figures 4 and 5). That different terms are sometimes used for similar levels in the various Instructional Hierachies, does not seem to pose any problem. There is agreement on the location of the Unit level and the LAP level. These are the two levels which interface with students, and are the two levels which contain the more constant elements. Pretest, Post Test and Diagnostic test information comes directly from these sources.

EXAMPLE

Assignment of Responsibility or Production Components for Bringing
About Student Mastery of Student Terminal Performance Objectives (STPO's)

PRODUCTION COMPONENTS

STPO's	Communication Skills	Math Skills	Ocrupational Preparation	Career Guidance	Counseling	Health Education	Consumer Ed. And Home Management
1.2.2.1						X	
.2							X
.3						X	
.4						X	
.5						X	
.6						X	
.7						X	
.8						X	
1.2.3.1							X
.2							X
.3							X
.4							X
.5							X
.6							X
.7						X	
1.2.4.1							
.2							
.3							
1.3.1.1					X		
.2							X
1.3.2.1					X		
.2							

Figure 3

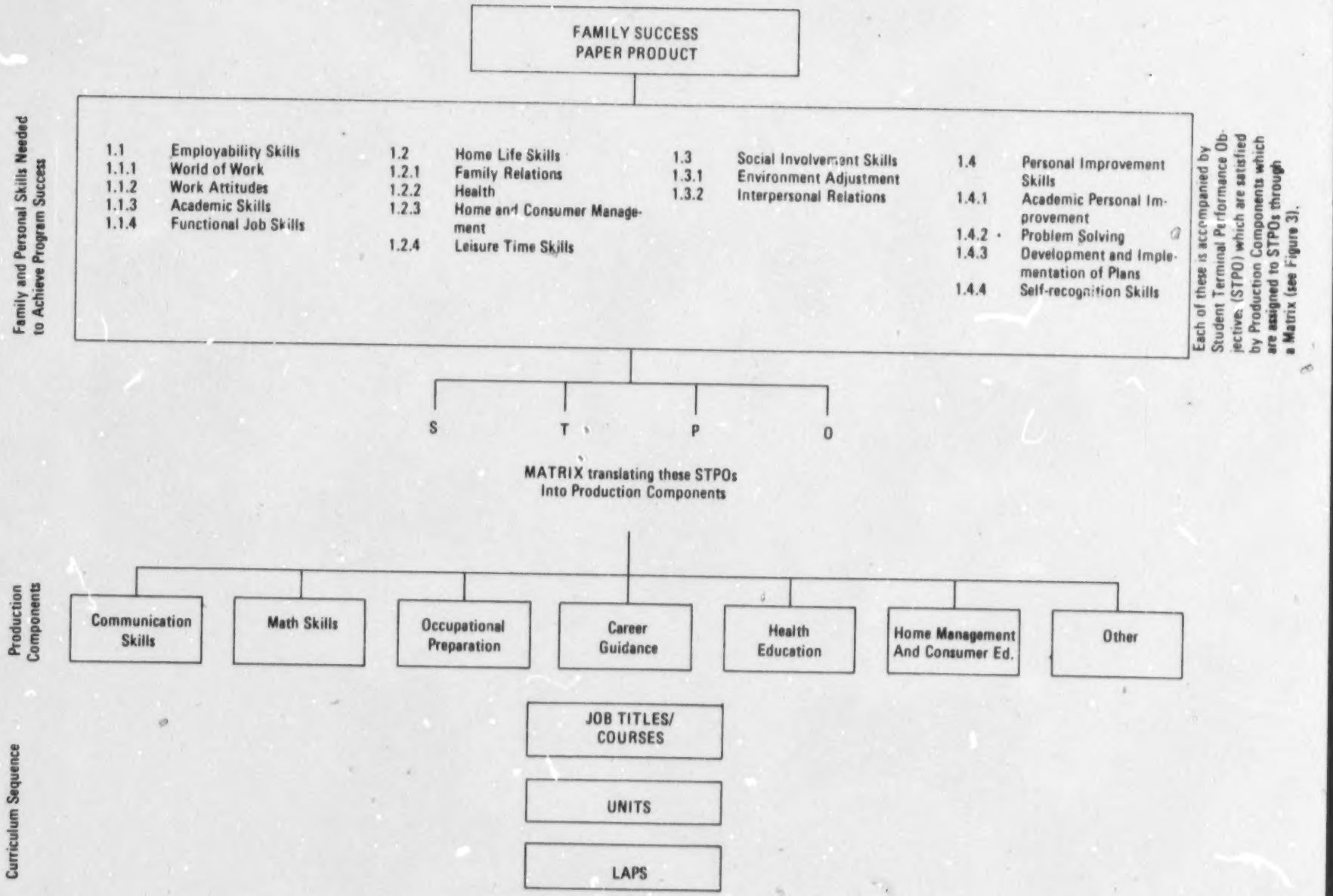

FAMILY SUCCESS PAPER PRODUCT
Family and Personal Skills Needed to Achieve Program Success
1.1 Employability Skills
1.1.1 World of Work
1.1.2 Work Attitudes
1.1.3 Academic Skills
1.1.4 Functional Job Skills
1.2 Home Life Skills
1.2.1 Family Relations
1.2.2 Health
1.2.3 Home and Consumer Management
1.2.4 Leisure Time Skills
1.3 Social Involvement Skills
1.3.1 Environment Adjustment
1.3.2 Interpersonal Relations
1.4 Personal Improvement Skills
1.4.1 Academic Personal Improvement
1.4.2 Problem Solving
1.4.3 Development and Implementation of Plans
1.4.4 Self-recognition Skills
Each of these is accompanied by Student Terminal Performance Objective. (STPO) which are satisfied by Production Components which are assigned to STPOs through a Matrix (see Figure 3).
S
T
P
O
MATRIX translating these STPOs Into Production Components
Production Components
Communication Skills
Math Skills
Occupational Preparation
Career Guidance
Health Education
Home Management And Consumer Ed.
Other
Curriculum Sequence
JOB TITLES/ COURSES
UNITS
LAPS

Figure 6

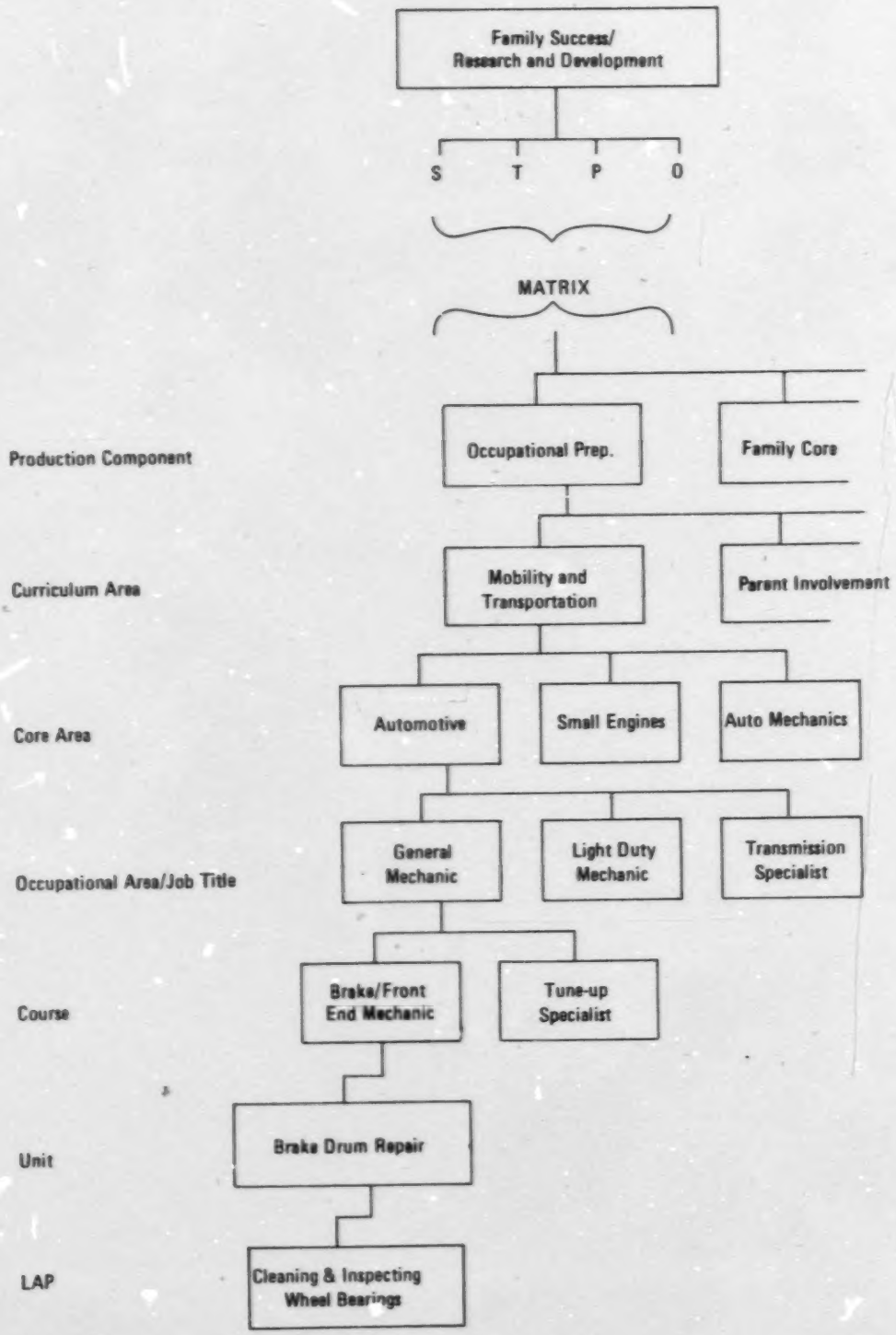

Family Success/
Research and Development
S
T
P
O
MATRIX
Production Component
Occupational Prep.
Family Core
Curriculum Area
Mobility and
Transportation
Parent Involvement
Core Area
Automotive
Small Engines
Auto Mechanics
Occupational Area/Job Title
General
Mechanic
Light Duty
Mechanic
Transmission
Specialist
Course
Brake/Front
End Mechanic
Tune-up
Specialist
Unit
Brake Drum Repair
LAP
Cleaning & Inspecting
Wheel Bearings

Figure 4

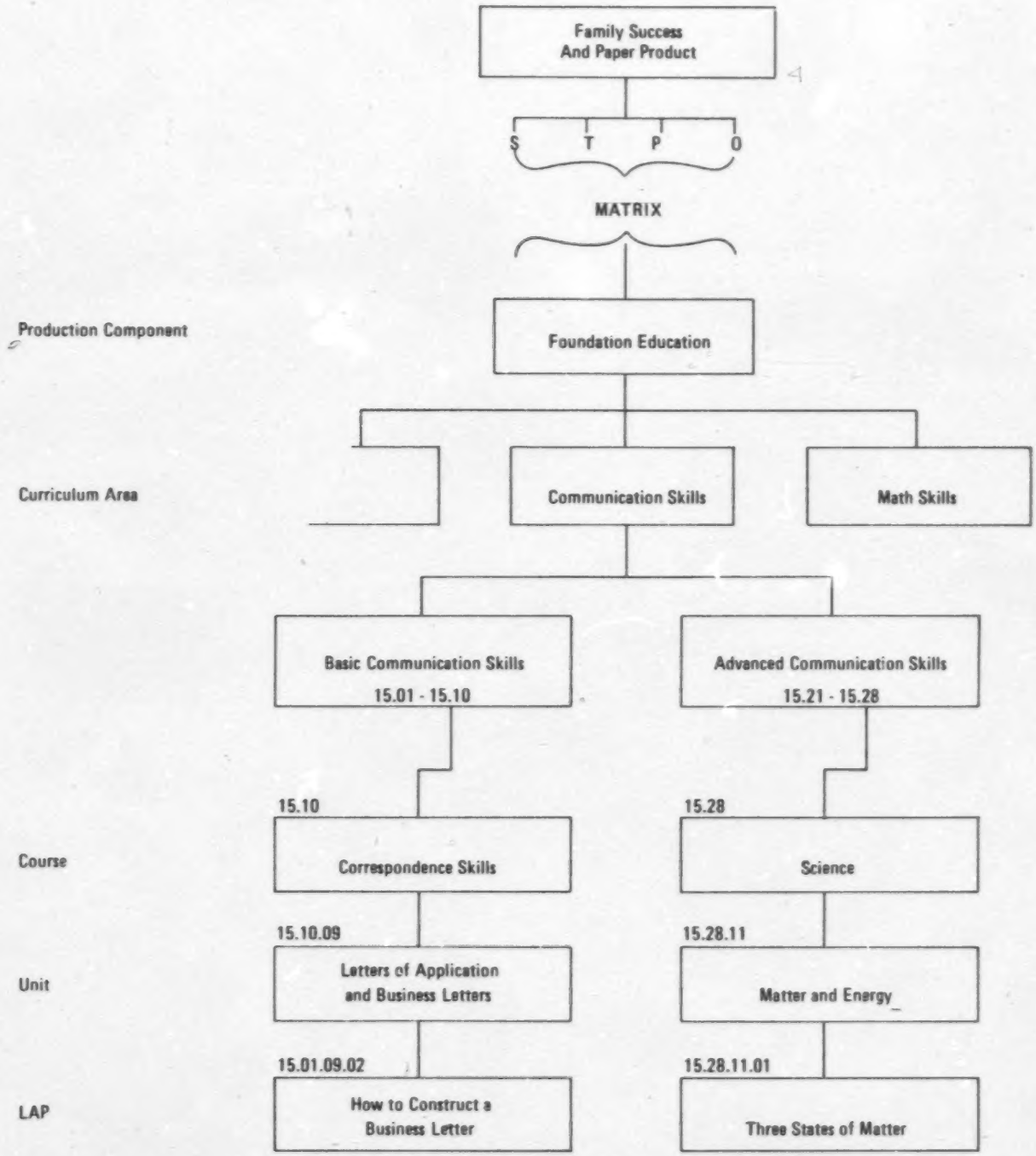

Family Success
And Paper Product
S T P O
MATRIX
Production Component
Foundation Education
Curriculum Area
Communication Skills
Math Skills
Basic Communication Skills
15.01 - 15.10
Advanced Communication Skills
15.21 - 15.28
15.10
15.28
Course
Correspondence Skills
Science
15.10.09
15.28.11
Unit
Letters of Application
and Business Letters
Matter and Energy
15.01.09.02
15.28.11.01
LAP
How to Construct a
Business Letter
Three States of Matter

Figure 5

CURRICULUM DEPARTMENT FUNCTION

This department has the responsibility of Devising, Defining and Implementing the total curriculum for the Mountain-Plains Project. Since the main interest in developing curriculum packages is to allow the material to be replicable and transportable, certain procedures and format must be followed. Some of these are presented for convenience and clarity. Please note that there may be some minor changes from previous examples. This is the result of synthesizing previous practices with subsequent experience. The intent of any change is to make any procedure more compatible with the system, and easier for the user. Within staff and time constraints, members of the department will be available to anyone having a need for their assistance.

TERMINOLOGY

LAPS

Learning Activity Package: The smallest component or subdivision of curriculum material that has:

1. stated outcome or lowest level of STPO and is relevant to a STPO at a higher level
2. stated procedure
3. performance criteria
4. measurement device
5. list of resources to provide learning experiences
6. resources attached where practicable

   Characteristics:

   a. is recorded on a standard form using standard format
   b. is produced in a manner which is understandable by the learner
   c. is individualized to the extent that the learner can proceed from one LAP to the next with a minimum of instructor assistance

UNITS

1. are logical groupings of LAPs by content
2. result in higher level of competence as indicated by high level objective
3. have LEGs and unit level tests
4. in some cases have two types of unit organization:

   a. those leading to courses for curriculum structure
   b. those leading to job title mastery or validation

COURSES

1. have logical content grouping of units
2. have LEGs, course level tests where applicable
3. result in higher level of competence as indicated by higher level objective

CURRICULUM

A group of related courses and/or job titles.

Characteristics

1. have cost-center-related numbers
2. are groups of related job titles (Career Preparation)
3. are groups of related courses
4. have comprehensive tests for:

   a. an entry-exit profile
   b. diagnostic program prescription

5. make up a production component

TERMINOLOGY (continued)

STPO (Student Terminal Performance Objective)

Mountain-Plains STPOs describe the behavior expected of the learner upon leaving the system.

Characteristics:

1. The achievement of an STPO is in terms of achieving its sub-objectives – except at the LAP level, which is directly measurable (e.g. Course objectives are satisfied in terms of meeting unit objectives)
2. A properly constructed STPO, whether in narrative or outline form, consists of four components:

   a. statement of observable terminal behavior
   b. conditions/constraints under which the behavior will occur
   c. criteria for successful behavior
   d. measurement device used to assess the behavior

3. STPOs identify purposes for which production components exist and are being held accountable
4. STPOs also form references against which summative evaluation will be measured
5. STPOs will be the basis for formative evaluation

FORMATIVE EVALUATION

The evaluative mechanism which yields information for changing or adjusting the system to improve its operation.

SUMMATIVE EVALUATION

The evaluation mechanism which indicates the extent to which the system has satisfied the purpose for which it exists.

PERFORMANCE ACTIVITY

An activity intended for the learner to experience which leads to mastery of an objective.

PROCEDURES FOR PROCESSING NEW AND UPDATING LEARNING ACTIVITY PACKAGES (LAPs) THROUGH THE CURRICULUM DEVELOPMENT PRODUCTION FLOW SYSTEM.

DEFINITIONS:

New LAP: A LAP that covers a new area, not a replacement LAP or an alternate LAP.

Replacement LAP: A LAP that has been rewritten and contains new or different materials; a revision that will completely replace an existing LAP; e.g., 37.02.01.01.A1 becomes 37.02.01.01.A2 wherever 37.02.01.01.A1 is deleted from the operational program.

Alternate LAP: A LAP written to be used in addition to an existing LAP, another version of the same LAP, one that uses different materials or a different method to attain the same objective; e.g., 15.07.06.01.A1, 15.07.06.01.B1, and 15.07.06.01.C1 all become part of the operational program. If one of the alternate LAPs should need to be replaced, the procedure for replacement LAPs should be followed: e.g., 15.07.06.01.B1 would be deleted and 15.07.06.01.B2 would take its place in the operational program.

PROCESSING STEPS:

1. For a New LAP

   a. If operational copies are needed before completion of the two week production flow system, the originator should make the number of copies needed for the two-week period. (Word Processing currently needs about this much time to get your LAPs back to you.) The originator also provides the Curriculum Department with a copy of the LAP, using the designed LAP worksheet form.

   b. When operational copies are not needed within two weeks, the originator simply provides curriculum with a copy of the LAP.

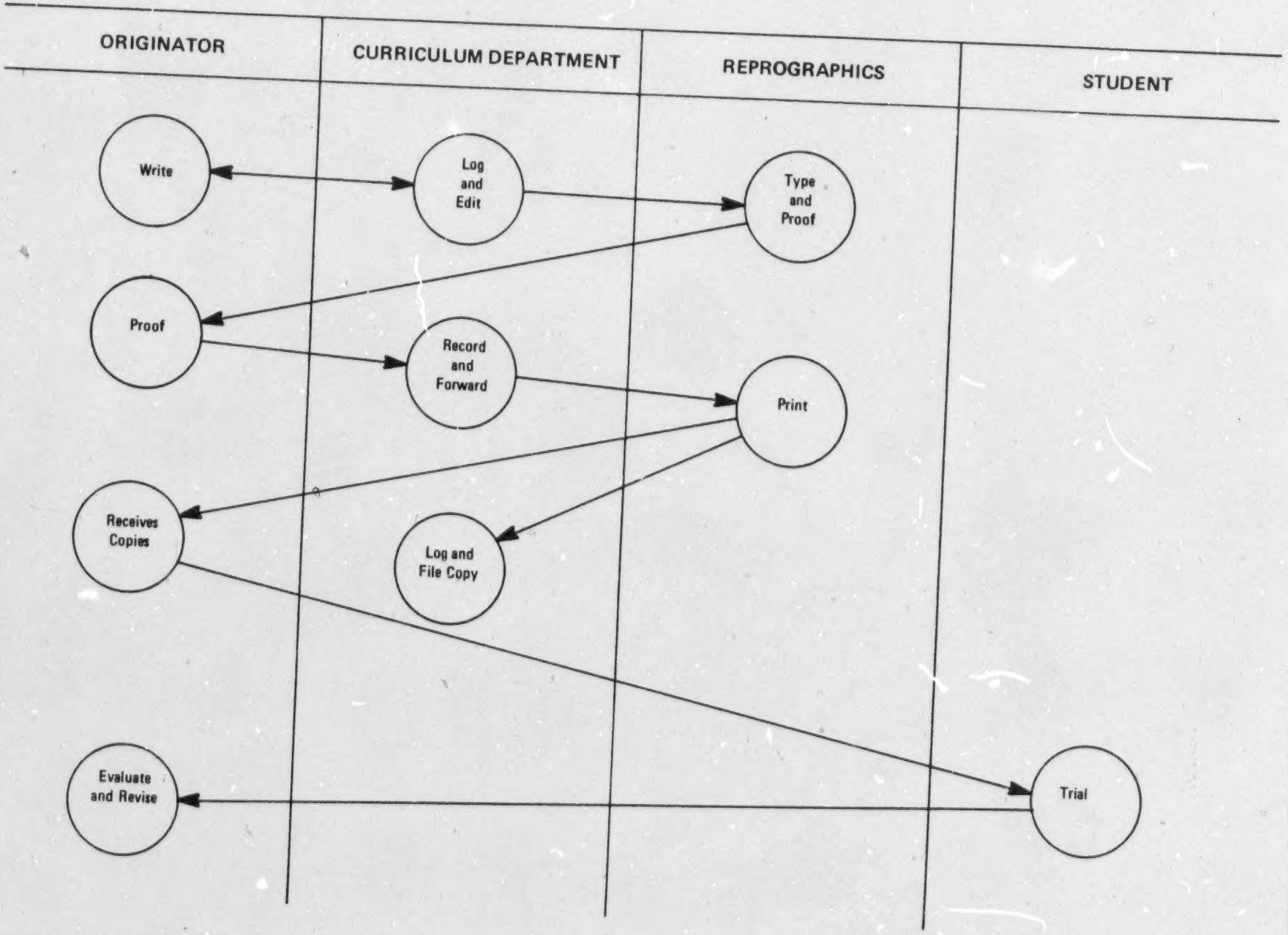
2. For a Replacement LAP

   The originator uses the designed LAP worksheet form and the processing steps for a new LAP, indicating on the form the change in the file code number as, e.g., A1 becomes A2 or B1 becomes B2.

3. For an Alternate LAP:

   The originator uses the designed LAP worksheet form and the processing steps for a new LAP, indicating on the form the correct file code number, e.g., B1, C1, D1, etc.

LAP AND LEG PRODUCTION FLOW CHART



LEARNING ACTIVITY PACKAGES
Directions for Producing

On the Learning Activity Package Worksheet, one needs to follow the suggested procedure. For further clarification, each item is explained.

1. Author – This is the name of the person who has designed this particular LAP.

2. Curriculum Area – Automotive, Office Education, etc.

3. Course – Could be Job Title – General Mechanic, Rough In, Accident Prevention, Small Engine Mechanic. There may be more than one course or job title for each core or instructional area.

4. Unit – There will be more than one unit for each course. Examples are: Fundamentals of Brake Systems, Excavation Layout, Concrete and Forms, Children's Safety, Appetizers, Letters of Appreciation.

5. Date – This is the date that Word Processing will use when typing the master copy.

6. Performance Activity – This is construed as being the title of the LAP. Emphasize here concise, brief, identifications of the contents of the LAP. Examples: Basic Brake Operations, Weighing and Measuring, Credit Problems, Three States of Matter.

7. Objective – Use here Mager's first two objective components. TERMINAL BEHAVIOR (what the learner will be doing) and the important CONDITIONS under which the behavior will occur. Items 7 and 8 may be combined if you wish.

8. Evaluation Procedure – Two things: 1) specify the CRITERIA of acceptable performance (how well the learner will have to perform to be considered acceptable) and 2) what measurement devices will be used to make this determination.

9. Resources – Texts, tools, materials, equipment, etc.

10. Procedure – These are the detailed steps a student takes in applying himself to the task of accomplishing whatever the above items assign to him. An example of a completed LAP appears in Figure 6. It should be emphasized that the steps should be such that the student can follow them without assistance, to the conclusion mandated by the objective. Unusual situations will be the exception.

File Code: 37.04.02.05.A2-0

Date Published: 8-7-74

Mountain-Plains Education & Economic Development Program, Inc.
Glasgow AFB, Montana 59231

Learning Activity Package

Student: _____

Date: _____

PERFORMANCE ACTIVITY: Cleaning & Inspecting Wheel Bearings

OBJECTIVE:

Identify the procedure for removing, cleaning, inspecting, repacking, installing and adjusting the front wheel bearings. Remove, clean, inspect, repack, and install a set of wheel bearings.

EVALUATION PROCEDURE:

80% correct on performance checklist.
LAP test after doing LAP 37.04.02.06

RESOURCES:

Automobile needing bearing service
Jack and safety stands
Bearing grease
Hand tools
Service Manual

PROCEDURE:

1. Lift the front of the car with a floor jack until the wheels clear the floor and put safety stands under the car.
2. Remove the spindle nut and outer wheel bearing. NOTE: After the nut is removed, hit the side of the tire at the top to cause the thrust washer and bearing to come loose.
3. Remove the wheel and hub assembly from the spindle by lifting up and pulling on the wheel. NOTE: Be careful not to damage brake shoes as the drum is pulled off.
4. Remove the dirt from the brake assembly and from inside the brake drum with an air blast.
5. Wipe the spindle clean with a shop cloth. CAUTION: Do not get grease on the brake shoes or inside the brake drum.
6. Wipe the inside of the hub and races clean with a shop cloth and wash the bearings in solvent and blow dry with compressed air. NOTE: Do not spin bearings with air.
7. Inspect bearings and races for nicks, burrs, pits and overheating. NOTE: If bearings look bad, they should be replaced. Check with instructor.
8. Check the races inside the hub, making sure they are tightly in place.
9. Repack the bearings using a wheel bearing packer and put a very light coat of fresh bearing grease on the races.

Principal Author(s): J. Anderson/W. Osland

10. Install inside seal and bearing by using a seal driver. NOTE: Check brake drum to be sure there is no grease on it.
11. Push drum and wheel over the spindle and brake shoes. NOTE: Be careful not to damage the brake shoes.
12. Install outer wheel bearing, thrust washer and nut. NOTE: Be sure that the small end of bearing is to the inside.
13. Tighten nut until there is no side play. NOTE: Tighten to specified pressure using a torque wrench.
14. Spin the wheel to be sure it turns freely. NOTE: Check with your instructor.
15. Install new cotter pin by bending the long prong around the nut.
16. Replace dust cover and hub cap.
17. Upon completion of the LAP, proceed to the next LAP.

THE STUDENT PROGRESS RECORD (SPR) AND STUDENT WORK PLAN (SWP)

A. Student Progress Record

These enable the student to keep track of his progress through various Curriculum Areas. He has one for each Job Title if in a career preparation class, and one for each other Curriculum Area.

Customarily, students manipulate the record, making appropriate entries and filing the form when not in use. In some cases, instructors prefer to do this so the Student Progress Record doesn't get lost or mutilated.

B. Student Work Plan

Student Work Plans are used to provide periodic information to others about the student's progression through his learning sequence.

Printed on carbonless multiple copy paper, Student Work Plans are removed at six week intervals for use by student advisors so that students can be scheduled appropriately in accordance with their progress.

10/1/74 Page 1 of 1 Pages

STUDENT NUMBER _____

Name _____

Rater _____

Date *(Entry)* _____ *(Exit)* _____

STUDENT WORK PLAN

KEY FOR FILLING OUT RIGHT HAND PARENTHESES:
(V) Unit prevalidated on pretest indicated by entering a "V" in the parentheses following unit code.
( ) For Completed Units enter total hours from SPR "Time Spent . . ." in the parentheses.
( ) For Incomplete Units enter total hours for completed LAP's from from SPR "Time Spent . . ." at the immediate right of the parenthese

Instructional or Curriculum Area	Comprehensive Written Test		Performance Check List		Attitude Check List		Other: Specify		COURSE UNITS NEEDED	Est. Time / Act. Time
37. AUTO AIR CONDITIONING	PRE	POST	PRE	POST	PRE	POST	PRE	POST		
Objectives: The student will demonstrate knowledge, acceptance, participation, appropriate work relations, job roles and responsibilities.										
The student will practice accident prevention techniques.	12 / 15		3 / 3						(10) 01.01 ( )	
The student will demonstrate mastery of cogantive skills.	88 / 110								(20) 05.01 ( ) (10) 11.05 ( ) (10) 12.03 ( ) (5) 11.01 ( ) (20) 11.06 ( ) (5) 13.07 ( ) (25) 11.02 ( ) (40) 11.07 ( ) (5) 13.08 ( ) (10) 11.03 ( ) (5) 12.01 ( ) (10) 11.04 ( ) (5) 12.02 ( )	
The student will demonstrate skill application.			100 / 100						(5) 02.01 ( ) (5) 02.02 ( ) (5) 02.03 ( )	
The student will demonstrate familiarity with and competence in, the use of tools, equipment and/or materials.	27 / 34		6 / 6							
TOTALS									JOB TITLE HOURS 235 ADJUSTED JTH _____ ADJUSTED SUPPORT HOURS _____ TOTAL ADJUSTED HOURS _____	Total Est. Time / Total Act. Time

KEY: Actual Score / Possible Test Score; Score Necessary to Pre-validate / Possible Test Score

PRETEST	POST TEST
	% Change

FOR DATA MONITOR USE

FOR PLANNER USE

20

STUDENT PROGRESS RECORD

10/1/74

Name _____ Number _____ Entry Date _____

Curriculum Area 37 AUTOMOTIVE Pretest Date _____

JOB TITLE: Auto Air Conditioning Post Test Date _____

		Time Spent in Curric. Compon.	Date Started	Date Com-pleted	Instruc-tor's Initials		
.01	Automotive Shop Safety						
	Pretest Score Post Test Score						
.01	Shop Safety						
	Pretest Post Test Perf. Test						
.01	Fundamentals of Shop Safety						
.02	Safety with Tools						
.03	First Aid						
.04	Shop Safety Observation						
.02	Tools and Equipment						
	Pretest Score Post Test Score						
.01	Basic Tools						
	Pretest Post Test Perf. Test						
.01	Hand Tool Fundamentals						
.02	Hand Tool Practice						
.02	Special Tools						
	Pretest Post Test Perf. Test						
.01	Precision Measuring Tools Fundamentals						
.02	Precision Measuring Tools Practice						
.03	Fasteners and Torque Wrench						
.03	Shop Equipment						
	Pretest Post Test Perf. Test						
.01	Shop Equipment Fundamentals						
.02	Jacks and Lifts Practice						
.03	Presses and Pullers Practice						
.04	Toolroom Observation						
.05	Electrical Systems						
	Pretest Score Post Test Score						
.01	Fundamentals of Electrical Systems						
	Pretest Post Test Perf. Test						
.11	Auto Air Conditioning						
	Pretest Score Post Test Score						
.01	Safety						
	Pretest Post Test Perf. Test						
.01	Safety Precautions						
.02	Theory of Operation						
	Pretest Post Test Perf. Test						

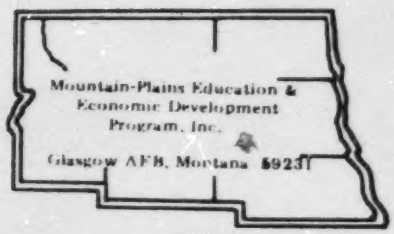
LEARNING EXPERIENCE GUIDES (LEGs)

These are designed to give the viewer a capsule look at the contents of the course, curriculum area or unit he is viewing. A student or instructor can see from the Course LEG what is contained in any course without detailed examination of course material.

LEGs may be used at curriculum area, course or unit levels in the curriculum sequence; it is suggested that the author make the LEG readable by students as well as instructors where practical. LEGs are also one of the best sources of information for persons from other schools and institutions to quickly determine the contents and usefulness of these curriculum products.

File Code: _____

Date Published: _____



Learning Experience Guide

CURRICULUM AREA: _____

DESCRIPTION:

Tells what the area is about, describes the curriculum content and specifies the characteristics of that content.

RATIONALE:

What the curriculum area will do for the student and how he will benefit from it.

OBJECTIVES:

These should be the same format as for LAPs. They should encompass, however, a broader scope being of a higher order. An attempt should be made to include at least samples of typical course objectives.

GENERAL INSTUCTIONS:

Include here any information which might be useful to students, instructors and others who might use this guide.

COURSE TITLES:

This is a list of all courses in this Curriculum Area.

EVALUATION PROCEDURE:

How the student is evaluated to determine achievement of the Curriculum Area objectives - kinds of tests, performance criteria, etc.

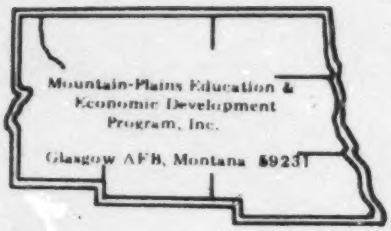
FOLLOW-THROUGH:

This section may be used for the instructions to students, instructors or others.

Principal Author(s):

File Code: _____

Date Published: _____



Learning Experience Guide

COURSE: _____

DESCRIPTION:

Tells what the course is about and describes the content and its characteristics.

RATIONALE:

What the course will do for the student.

OBJECTIVES:

These should be the same format as for LAPs. They should encompass, however, a broader scope being of a higher order. An attempt should be made to include at least samples of typical unit objectives.

PREREQUISITES:

These are the knowledges and performance capabilities necessary for entrance into the course. Avoid specific grade levels unless coded.

RESOURCES:

Printed materials, audio-visuals and equipment to be used in accomplishing the objectives. In the course guide only the primary resources to be used are reported. Resources are listed alphabetically by title into the following three categories:

Printed Materials:
The following information arranged as given is reported for printed materials. Titles are underlined.

Title, author, publisher, year

Audio Visuals:
The information given for audio-visual resources is as follows:

Title, author, publisher, year
(Kind of audio-visual) When listing multi-media resources that have several kinds of components to be used together, list each by title in the appropriate category and make a cross reference statement following the resource entry like: "See title in Printed Materials".

Principal Author(s):

RESOURCES: (continued)

Equipment:
That which a school or institution would find necessary to adequately conduct the course - could include such items as:

Line border
Study carrels
16 mm projector

GENERAL INSTRUCTIONS:

Same as for Curriculum Area - LEG

UNIT TITLES:

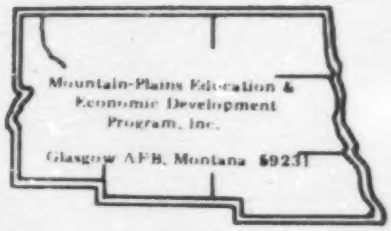
A listing of all units included in this particular course.

FOLLOW-THROUGH:

Same as for Curriculum Area - LEG

File Code: _____

Date Published: _____



Learning Experience Guide

UNIT: _____

RATIONALE:

How the unit will benefit the student when completed. It will tell what unit achievement will do for the student.

PREREQUISITES:

Same as for Course LEG.

OBJECTIVES:

These should be the same format as for LAPs. They should encompass, however, a broader scope being of a higher order. An attempt should be made to include at least samples of typical LAP objectives.

RESOURCES:

In the Unit LEG are listed only those printed materials, audio-visuals and equipment used to accomplish the performance objectives for the unit. Resources are listed alphabetically by title into the following three categories:

Printed Materials:
The printed material resources are identified as follows with titles underlined:

Title, author, publisher, year

Audio-Visuals:
The audio-visual resources are identified as follows with titles underlined:

Title, author, publisher, year, (kind of audio-visual)
Multi-media resources with components that are used together are each listed by title in the appropriate category and a cross reference statement follows the resource entry like: "See title in Printed Materials".

Equipment:
Same as for Course LEG.

GENERAL INSTRUCTIONS:

Specify and explain the procedures that are to be followed by students within this unit.

Principal Author(s):

PERFORMANCE ACTIVITIES:

A list of all the performance activities for this unit.

EVALUATION PROCEDURE:

Procedure used to determine student achievement of the stated unit objectives.

FOLLOW-THROUGH:

The next step that the student is to do after reading this unit guide.

PROCEDURES FOR CURRICULUM DEVELOPMENT

Procedural development steps - these are the general procedures to be followed in establishing your curriculum. Even though listed in a particular order for the sake of easy reference, the steps in reality may not follow this sequence. (Item 2 may come before Item 1).

1. Curriculum Area
   a. Identify Courses
   b. Identify Units
   A curriculum worksheet (See Forms) should be submitted to the Curriculum Department after identification of courses and units.

2. Performance Activities (stated as objectives)
   a. Identify Them
   b. Assign Them to Units
   When the PAs for a course have been identified and assigned to units, submit a complete list of those PAs to the Curriculum Department.

3. Evaluation Techniques
   At this point, construction of evaluation procedures to measure the degree of success in meeting the performance activity objective (PO) should begin. Total development time.

4. Construct a LAP or LAPs for each Performance Activity
   There is a LAP Worksheet that should be used when possible for LAP drafts submitted to the Curriculum Department.

5. Prepare LEGs for Units
   There is a LEG Worksheet to be used when possible for LEG drafts.

6. Prepare LEGs for Courses

7. Prepare LEGs for Curriculum Area Where Deemed Necessary

Curriculum Change

When there is a necessity for Curriculum change, use the Course/Unit/Occupational Requirement Changes Form to report the proposal.

Curriculum Product Routing Slip Procedure

The routing process is used to maintain control and timely processing of Curriculum Products, The Routing Slip is initiated by the Curriculum Department upon receipt of curriculum product. A sample form of the Routing Slip is displayed in the form section. The curriculum product is reviewed and edited by the Curriculum Department. It is either sent back to the originator or to Word Processing for typing. The originator will always return the product to the Curriculum Department. At each routing step, upon receipt of the curriculum product, the receiving date should be filled in.

Before the product is sent on to the next routing step, the "completed by (initials)" column should be initialed. On routing step line 5, the originator should indicate the number of printed copies that are desired when finally sent to Reprographics.

NOTE: If minor corrections are to be made on curriculum products that have been typed by Word Processing, make them in pencil on the side margins to speed up the correction time by Word Processing.

EVALUATION

Briefly, evaluation takes place primarily at the LAP and Unit level. Here is where the curriculum interfaces with students; this is also where nearly all test items are derived. In fact, it can be concluded with minor reservation, that any test items which may appear in the curriculum sequence at a higher than Unit level, are essentially little more than a compilation of already-stated test items at a subordinate level (Unit and LAP Levels). Further, it can be concluded that the adequacy of a curriculum sequence is tested by the capability of the sequence to bring students to a STPO level of performance. It should be further stated that STPOs are a translation of the mission statements into Behavioral Objectives which will be observed in the student at the time he leaves the immediate influence of the Center. These STPOs are identified, as are their place in the Mountain-Plains Scheme. They, in effect, offer themselves as guides to the Curriculum Sequence, and are fed into this sequence through a matrix to the various Production Components which head the Curriculum Sequence. (See Figure 6).

As stated in Volume II, Research Design, the establishment of relationships between STPOs at the top of the sequence, and LAPs and Units at the bottom of the sequence are germane to the Evaluation Process.

Following this design, satisfactory accomplishment of objectives at such levels as Courses and Job Titles, could be tested and validated by inference, provided that Unit and/or LEP test items (objectives) are accomplished.

On-Site – Ongoing Evaluation concerns, for the most part, three things:

A. Pretest – How does the student perform when he begins a learning sequence?
B. Post Test – What significant change has taken place in his behavior as a result of his learning experience? What LAP and Unit objectives has he attained?
C. Diagnostic – What of the LAPs and Units offered does he need to accomplish his academic, occupational or personal objectives?

This evaluation also measured the effectiveness of the learning experiences in the Curriculum Sequence, and points up time lags, irrelevancies and other problems.

FORMS

CURRICULUM PRODUCT CHANGES

Purpose:

A Curriculum Routing Change form is completed to request a course, unit or occupational requirement change in the implemented curriculum.

Guidelines for Use:

A change desired for the implemented curriculum is identified and justified on the curriculum change form. Applicable drafts of curriculum products are attached. The Senior Instructor and Educational Services Director sign the request and forward it to the Curriculum Department. When the request is received, the Curriculum Department staff reviews it and after concurrance coordinates necessary action and establishes an implementation date for the changes.

CURRICULUM CHANGE ROUTING FORM

TYPE OF CHANGE:

DATE _____

COURSE	___	LEG	___
UNIT	___	TEST	___
LAP	___	MATRIX	___
SWP	___	STPO	___
SPR	___	OTHER	___

CHANGE CATEGORY (Check One)

___ NEW
___ REPLACEMENT
___ ALTERNATE
___ OTHER

ORIGINATOR

_____
TITLE - CURRICULUM AREA

1. Identify proposed change in detail: *(Attach supporting information; curriculum number, example, etc.)*

2. State reason for request, including substantiating data:

3. How will proposed change meet the needs identified in 2 above?

ACTION AND RECOMMENDATIONS:

RESEARCH SERVICES/CURRICULUM _____

_____

EDUCATIONAL SERVICES DIVISION: _____

_____

FINAL DISPOSITION: _____

_____

CURRICULUM WORKSHEET

Purpose:

The Curriculum Worksheet is used to list the courses and units for a curriculum area. It also is used to relate such things as occupation, job titles, types of students, occupational clusters, etc., to the Curriculum Area courses and units.

Guideline for Use:

The Curriculum Area title and number are recorded in the upper left corner block. Each vertical column is identified as a unit by title and number as shown in the illustration. Each group of units in a course are identified by title and number as shown across the top of the illustration. The horizontal lines are used to denote various things. In occupational preparation curriculum areas it may list the occupational titles or clusters. The matrix so formed may then be marked to show units required by each occupational title or cluster. If particular occupational training requires training outside of the named curriculum area, the name and number of the curriculum area(s) providing the support are recorded as shown in the illustration.

CURRICULUM WORKSHEET

CURRICULUM AREA (00)	.01 COURSE						.02 COURSE										.03 COURSE								SUPPORT					
DATE	.01 UNIT	.02 UNIT	.03 UNIT	.04 UNIT	.05 UNIT	.06 UNIT	.01 UNIT	.02 UNIT	.03 UNIT	.04 UNIT	.05 UNIT	.06 UNIT	.07 UNIT	.08 UNIT	.09 UNIT	.10 UNIT	.11 UNIT	.01 UNIT	.02 UNIT	.03 UNIT	.04 UNIT	.05 UNIT	.06 UNIT	.07 UNIT	.08 UNIT	(00) CURRICULUM AREA	(00) CURRICULUM AREA	(00) CURRICULUM AREA	(00) CURRICULUM AREA		
1. OCCUPATION																														
2. JOB TITLES																														
3. TYPES OF STUDENT																														
4. OCC. CLUSTERS																														
5. ETC.																														
6.																														
7.																														
8.																														
9.																														
10.																														
11.																														
12.																														
13.																														
14.																														
15.																														
16.																														
17.																														

ROUTING SLIP

Purpose:

The Routing Slip is used to assist in the control and timely processing of curriculum products.

Guideline for Use:

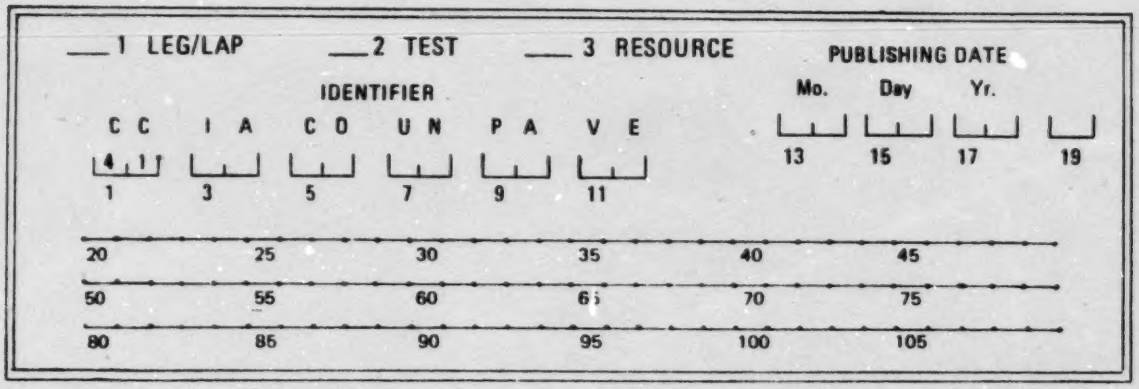
The Routing Slip for curriculum products is prepared by the Curriculum staff and attached to each product that is received. The curriculum product is reviewed and edited by the Curriculum Department. It is either sent back to the originator or to Word Processing for typing. An originator will always return the product to the Curriculum Department. At each routing step, upon receipt of the Curriculum product, the receiving date is to be filled in. Curriculum assigns suspense dates for each routing step. Before the product is sent on to the next routing step, the "completed by (initials)" column should be initialed. The number of printed copies is recorded on Line 5 of the routing slip. The routing slip is then used for keypunching.

Routing Slip
Curriculum Products

AUTHOR _____

PHONE _____

ORIGINATING DEPARTMENT _____ BUILDING NUMBER _____


___1 LEG/LAP
___2 TEST
___3 RESOURCE
PUBLISHING DATE
Mo. Day Yr.
IDENTIFIER
C C I A C O U N P A V E
4 1
1 3 5 7 9 11
13 15 17 19
20 25 30 35 40 45
50 55 60 65 70 75
80 85 90 95 100 105

ROUTING STEPS	RECEIVING DEPARTMENT	RECEIVING DATE	Completed by (Initials)	SUSPENSE DATE
1.	CURRICULUM			
2.	ORIGINATOR			
3.	CURRICULUM			
	Approved for production by: _____			
4.	WORD PROCESSING *(If further commentary with Curriculum is needed, note reason: i.e., not legible, unclear, etc.)* Comments:			
	Proofread by: _____			
5.	REPRODUCTION: Send master and _____ copies to the originator. Send 2 copies and this form to curriculum. COST CENTER			

COMMENTS:

INITIATION OF AN AUDIO-VISUAL CURRICULUM PRODUCT

Purpose:

An Initiation of an Audio-Visual Curriculum Product form is used to make A-V curriculum products development proposals to the Curriculum Department.

Guidelines for Use:

The Senior Instructor submits an Initiation of Audio-Visual Curriculum Product proposal by completing the form that includes the concisely but thoroughly answering of four questions.

INITIATION OF AUDIO-VISUAL CURRICULUM

TO: Curriculum Department
Research Services Division

FROM: _____
(name)

1. Area in which the problem exists:

   (A) Instructional Area Code Number ___
   (B) Course Number ___
   (C) Unit Number ___
   (D) P.A. Number ___

2. What is the specific problem?

3. What do you consider to be the alternative solution(s) to this problem?

4. What result do you wish to achieve?

5. Why do you think this result can best be achieved through Audio-Visual product?

Senior Instructor: _____

Date: _____